

WHAT IS CLAIMED IS:

1. A high-speed shear for transverse cutting of a rolled strip comprising:
- a first upper blade drum having a comparatively large diameter and carrying a first blade;
 - a second lower blade drum having a comparatively small diameter and carrying a second blade;
 - means for rotationally connecting the first and second blade drums, the first and second blades cooperating with each other in a predetermined cutting position of the first and second drums for cutting the rolled strip;
 - means located in front of and behind the first and second drums for advancing the rolled strip, under longitudinal tensioning, through a gap between the first and second drums; and
 - roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second blade and for lowering the strip before passing of the first blade through a cutting position.

2. A shear as set forth in claim 1, wherein the rotationally connecting means comprises two synchronizing tooth gears fixedly connected with respective blade drums and having different pitch circle diameters corresponding roughly to diameters of respective blade, the synchronization tooth gears engaging each other substantially backlash-free.

3. A shear as set forth in claim 1, wherein a portion of a periphery of the first upper blade drum opposite a blade carrying region is flattened.

4. A shear as set forth in claim 1, wherein the roller means cooperate with one of hydraulic, mechanical, driving and adjusting means an operation of which is synchronized with passing of a respective one of the second and first blades through the blade gap between the first and second drum.

5. A shear as set forth in claim 2, wherein the first and second blade drums are rotationally preloaded relative to each other.

6. A shear as set forth in claim 2, wherein in order to at least minimize the backlash, the tooth gear associated with the second lower blade drum is radially divided, with divided portions being rotationally preloaded with respect to each other.

7. A shear as set forth in claim 1, wherein a number of x-revolutions of one of the blade drums corresponds to a number of y-revolutions of another of blade drums so that the blade drums are brought into the cutting position after different but finite number of the x-revolution and y-revolutions of the respective blade drums.

8. A high-speed shear for transverse cutting a rolled strip to a length, comprising:

an upper beam bridge having a relatively large diameter and carrying a first blade and having a shaft stub on each of opposite longitudinal sides thereof;

a lower blade drum having a comparatively small diameter and carrying a second blade;

means for rotationally connect beam bridge with the lower drum, the first and second blades cooperating with each other in a predetermined cutting position of the beam bridge and the lower drum for cutting the rolled strip;

means located in front of and behind the beam bridge and the drum for advancing the rolled strip, under longitudinal tensioning, through a blade gap between the beam bridge and the lower drum; and

roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second blade and for lowering the strip before passing of the first blade through the blade gap.

9. A high-speed shear for transverse cutting a rolled strip to a length, comprising:

a first upper blade drum having a comparatively large diameter and carrying a cutting bit;

a second lower blade drum having a comparatively small diameter and carrying an anvil;

means for rotationally connecting the first and second drums, the cutting bit and the anvil cooperating with each other in a predetermined cutting position of the first and second drums for cutting the rolled strip;

means located in front of and behind the first and second drums for advancing the rolled strip, under longitudinal tensioning, through a blade gap between the first and second drums; and

roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second blade and for lowering the strip before passing of the first blade.

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